

What is claimed is:

1. A transmission line coding method of performing transmission line coding per transmission frame having a plurality of compressed frame data, comprising the steps of:

5 grouping bits of said compressed frame data into plural classes according to a degree of degradation of decoding quality in the presence of a transmission error; and

10 performing different transmission line coding for each classes.

2. A transmission line coding method according to claim 1, wherein the bits of said compressed frame data are grouped into at least three classes involving first class, 15 second class of which the degree of degradation of the decoding quality is smaller than that of the first class and third class of which the degree of degradation of the decoding quality is smaller than that of the second class, and

20 wherein first process "convolution coding and addition of CRC check codes" is performed for bits classified as the first class, second process "convolution coding only" is performed for bits classified as the second

class, and third process "no coding" is performed for bits classified as the third class.

3. A transmission line coding method according to claim
5 1,

wherein the transmission line coding involves addition of CRC check codes to bits which are classified into a critical class where degradation of the decoding quality is largest.

10

4. A transmission line coding method according to claim
1,

wherein said plurality of compressed frame data is audio compressed frame data, which is split into two to six
15 sub-bands, compressed by way of a sub-band ADPCM mode.

5. A transmission line decoding method, comprising the steps of:

performing different transmission line decoding for
20 transmission frames, which are encoded by way of the transmission line coding method according to claim 1 in each of plural classes grouped in descending order of the degree of degradation of decoding quality in the presence of a transmission error; and

25 subsequently canceling the grouping to restore

original information.

6. A transmission line decoding method, comprising the steps of:

5 performing forth process "Viterbi decoding and CRC check process" for bits classified as first class, performing fifth process "Viterbi decoding only" for bits classified as second class of which a degree of degradation of decoding quality is smaller than that of the first
10 class, and performing sixth process "no decoding" for bits classified as third class of which the degree of degradation of the decoding quality is smaller than that of the second class, wherein each bits are encoded by way of the transmission line coding method according to claim 2;
15 and

subsequently canceling the grouping to restore original information.

7. A transmission line decoding method of performing
20 process for transmission frames encoded with a transmission line coding method according to claim 4 in each of audio compressed frame data compressed by way of a sub-band ADPCM mode, comprising the step of:

halting application process of a scale factor of
25 ADPCM decoding per sub-band in the presence of a

transmission error in said audio compressed frame data.

8. An audio encoder comprising means for executing the transmission line coding method according to claim 1.

5

9. An audio decoder comprising means for executing the transmission line decoding method according to claim 5.

10. A digital radio transmitter comprising means for
10 executing the transmission line coding method according to claim 1.

11. A digital radio transmitter comprising means for
15 executing the transmission line decoding method according to claim 5.

12. A transmitter of a digital wireless microphone system
20 comprising means for executing the transmission line coding method according to claim 1.

13. A receiver of a digital wireless microphone system
comprising means for executing the transmission line
decoding method according to claim 5.